

Missouri Assessment Program (MAP) Released Items - Spring 1999

Intermediate Mathematics (Grade 8)

Packet Contents

From Test Booklet:

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“Working at Pizza World” – Session 2 - Items 10 and 11

Scoring Guides:

Session 2 - Item 1

Session 2 - Items 10 and 11



Missouri Department of Elementary and Secondary Education



WINTER BANQUET

Directions

Show all of your work and write your answers directly in this book.



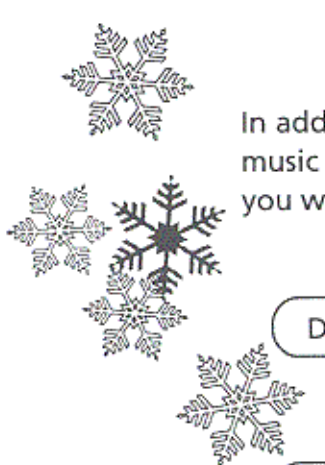
You are in charge of planning your school's winter banquet. You will be required to prepare a budget report to give to the principal prior to the banquet.

First you have to determine the total number of people who will attend the banquet. The restaurant where the banquet will be held requires a guarantee that a minimum of 150 people will attend. The restaurant's maximum capacity is 300 people.

Using the following information, determine the total number of people who will be attending the banquet:

- With just 3 days left to sign up for the banquet, a total of 139 people had made reservations.
- During the last 3 days of sign-ups, reservations were made at the rate of 15 per day for the first 2 days, with the sign-up rate doubling on the last day.

In the space below, provide the work that shows how you arrived at your answer.



In addition to the dinner, you plan to have decorations, door prizes, and music at the banquet. Use the information below to help you choose the items you want:

Door prizes cost \$25.00 each.

A band costs \$450.00.

A disc jockey costs \$225.00.

Dinners for the first 150 people cost \$6.00 per person.

Dinners for the rest cost \$5.00 per person.

Decorations with flowers cost \$208.50.

Decorations without flowers cost \$119.50.



You have a budget of \$1,800 to pay for the dinners, music, decorations, and door prizes. Calculate the cost of the banquet for the number of people who will be attending. Then, develop a budget report to give to the school principal that shows the total cost of the winter banquet. Include the following in your report:

- the total cost of the dinners
- the cost of the music
- the cost of the decorations
- the quantity and cost of the door prizes

In the space below, provide the work that shows how you arrived at your decision.

Write your budget report here.



Go On





Working at Pizza World

Directions

Numbers 10 through 12 are about Chris's new job at Pizza World. Show all of your work and write your answers directly in this book.

10

Chris gets paid \$6 an hour. Of the total amount of money he earns, 25% is deducted for income tax and social security. What is Chris's take-home pay after working a 30-hour week? In the box below, provide the work that shows how you arrived at your answer.

Go On





Pizza World offers these pizza toppings: pepperoni, sausage, ham, extra cheese, mushrooms, bell peppers, and olives. How many different kinds of pizza can Chris make if each pizza has *two different* toppings? In the box below, provide the work that shows how you arrived at your answer.

Session: 2
Item No.: 1
Page No.: 2–4
Content Standard(s): 1 Number Sense
Process Standard(s): 1.8

Score Points:

4 points The student's response fully addresses the performance event.

The response:

- demonstrates knowledge of the mathematical concepts and principles needed to complete the event.
- communicates all process components that lead to an appropriate and systematic solution.
- may have only minor flaws with no effect on the reasonableness of the solution.

3 points The student's response substantially addresses the performance event.

The response:

- demonstrates knowledge of the mathematical concepts and principles needed to complete the event.
- communicates most process components that lead to an appropriate and systematic solution.
- may have only minor flaws with minimal effect on the reasonableness of the solution.

2 points The student's response partially addresses the performance event.

The response:

- demonstrates a limited knowledge of the mathematical concepts and principles needed to complete the event.
- communicates some process components that lead to an appropriate and systematic solution.
- may have flaws or extraneous information that indicates some lack of understanding or confusion.

Session: 2

Item No.: 1

Page No.: 2–4

Content Standard(s): 1 Number Sense

Process Standard(s): 1.8

1 point The student's response minimally addresses the performance event.

The response:

- demonstrates a limited knowledge of the mathematical concepts and principles needed to complete the event.
- communicates few or no process components that lead to an appropriate and systematic solution.
- may have flaws or extraneous information that indicates lack of understanding or confusion.

0 points Other—Responses not addressed by the Condition Codes:

Examples of "0":

Work consists of copying the prompt information only.

Work indicates no mathematical understanding of the task.

Session: 2

Item No.: 1

Page No.: 2–4

Content Standard(s): 1. Number Sense

Process Standard(s): 1.8

Sample Solution:

- Calculates the number of people attending the banquet
 $139 + 2(15) + 30 = 199$
- Calculates the cost of the dinners
 $150 \times 6 = \$900$
 $49 \times 5 = \$245$
 $900 + 245 = \$1145$
- Calculates the amount of money available for music, decorations, and door prizes
 $1800 - 1145 = \$655$
- Makes appropriate choices for music, decorations, and door prizes and stays within budget
- Makes a budget report

Beginning Balance	\$1800.00
Cost of Dinners	<u>1145.00</u>
Subtotal	655.00
Cost for Band	<u>450.00</u>
Subtotal	205.00
Cost of Decorations	<u>119.50</u>
Subtotal	85.50
Three door prizes at \$25 each	<u>75.00</u>
Ending Balance	\$10.50

OR

An itemized list of expenses, in numbers or words, with a total shown

OR

A running addition/subtraction list

OR

Other valid report

Session: 2

Item No.: 10

Page No.: 11

Content Standard(s): 1 Number Sense

Process Standard(s): 1.10

Exemplary Response:

• (\$) 135

AND

• $30 \times 6 = (\$) 180$

$180 \times 0.25 = (\$) 45$

$180 - 45$

OR

Other valid process

Score Points:

2 points Exemplary Response

1 point Correct process; error in computation

OR

Correct answer

OR

Correctly finds amount of deductions (\$45); with process shown

0 points Other